Installation manual **EN**

AQUAREA
AIR

We would first of all like to thank you for chosing one of our products.

We are sure you will be happy with it because it represents the state of the art in the technology of home air conditioning.

By following the suggestions contained in this manual, the fan coil that you have purchased will operate without problems giving you optimum room temperatures with minimum energy costs.

Conformity

This unit complies with European directives:

- Low tension directive 2006/95/CE
- Electro-magnetic compatibility 2004/108/CE.

Symbols

The pictures in the next chapter provide the information necessary to quickly and safely install and operate the machine.

Editorial pictograms

U User
- Refers to pages containing instructions or information for the user.

I Installer
- Refers to pages containing instructions or information for the installer

S Service
- Refers to pages containing instructions or information for the installer TECHNICAL CUSTOMER SERVICE.

Safety pictograms

⚠ Generic danger
- Signals to the personnel that the operation described could cause physical injury if not performed according to the safety rules.

⚠ Danger of high voltage
- Signals to the personnel that the operation described could cause electrocution if not performed according to the safety rules.

⚠ Danger due to heat
- Signals to the personnel that the operation described could cause burns if not performed according to the safety rules.

⛔ Do Not
- Refers to actions that absolutely must not be performed.

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1.1 General warnings

⚠ After unpacking, make sure that all the components are present. If not, contact the agent who sold the appliance to you.

⚠ Aappliances must be installed by an authorised installer who, on completion of the work, will release a declaration of conformity to the client in respect of the laws in force and the indications given by in the instructions leaflet supplied together with the appliance.

⚠ These appliances have been designed both for conditioning and/or heating environments and must be destined for this use only and compatibly with their performance characteristics.
The company accepts no responsibility, either contractual or extra-contractual, for any damage caused to persons, animals of property as a result of incorrect installation, adjustment or maintenance or improper use.

⚠ In case of water leaks, turn the master switch of the system to "OFF" and close the water taps.
As soon as possible, call the technical service department or else professionally qualified personnel and do not intervene personally on the appliance.

⚠ If the appliance is not used for a log period of time, the following operations should be performed:
- Turn the master switch of the system to "OFF"
- Close the water taps
- If there is the risk of freezing, make sure that anti-freeze has been added to the system otherwise empty the system.

⚠ If the room temperature is too low ot too high it is damaging for the health and is also a useless waste of energy.
Avoid prolonged contact with the direct air flow.

⚠ Correct air change rates should be maintained in any space check local guide lines and adhere to these.

⚠ This instruction leaflet is an integral part of the appliance and consequently must be kept carefully and must ALWAYS accompany the appliance, even when it is passed to a new owner or user or transferred onto another system. If it is lost or damaged, please contact the local technical service centre.

⚠ All repair or maintenance interventions must be performed by the technical service department or by professionally qualified personnel as foreseen in this booklet. Do not modify or intervene on the appliance as this could create dangerous situations and the manufacturer will not be responsible for any damage caused.

⚠ Danger from burns - take care when touching

1.2 Fundamental safety rules

⛔ Remember that some fundamental safety rules should be followed when using a product that uses electricity and water, such as:

⛔ It is dangerous for the appliance to be used by children or unassisted disabled persons.

⛔ It is dangerous to touch the appliance with wet hands or body when barefoot.

⛔ It is dangerous to carry out any cleaning before having disconnected the appliance from the electricity mains supply by turning the system master switch to "OFF".

⛔ It is dangerous to modify the safety or adjustment devices or adjust without authorisation and indications of the manufacturer.

⛔ It is dangerous to pull, cut or knot the electrical cables coming out of the appliance, even if it is disconnected from the mains supply.

⛔ It is dangerous to poke objects or anything else through the inlet or outlet grills.

⛔ It is dangerous to open the doors which access the internal parts of the appliance without first turning the system master switch to "OFF".

- It is dangerous to dispose of or leave in the reach of children the packaging materials which could become a source of danger.
- It is dangerous to climb onto the appliance or rest any object on it.
- The external parts of the appliance can reach temperatures of more than 70°C.

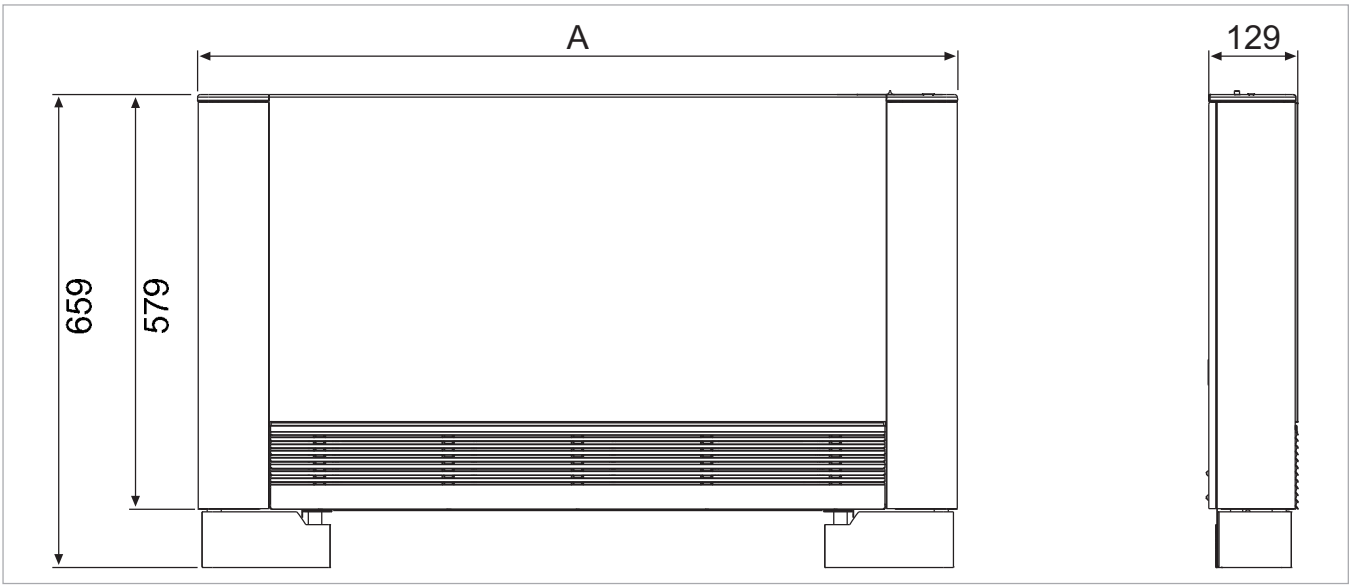
EN

1.3 Nominal technical features

TECHNICAL DATA				
PAW-AAIR		**200**	**700**	**900**
Battery water contents	l	0,47	0,8	1,13
Maximum working pressure	bar	10	10	10
Maximum water inlet temperature	°C	80	80	80
Minimum inlet water temperature	°C	4	4	4
Hydraulic fixtures	"	Eurokonus 3/4	Eurokonus 3/4	Eurokonus 3/4
Power supply	V/ph/Hz	230/1/50	230/1/50	230/1/50
Maximum current absorbed	A	0,11	0,16	0,18
Maximum power absorbed	W	11,9	17.6	19,8
Weight SLI	kg	9	12	15
Weight SL	kg	17	20	23
Weight RS	kg	17,3	20,4	23,4
Weight SLS	kg	12	14	16

1.4 Overall dimensions

	U.M.	**200**	**700**	**900**
Dimensions				
A	mm	735	935	1135



INSTALLATION

1.5 Positioning the unit

⚠ Avoid installing the unit in proximity to:
- positions subject to exposure to direct sunlight;
- proximity to external sources of heat;
- In damp areas or places where the external parts of the unit may come in contact with water.
- in places with oil fumes
- places subject to high frequencies.

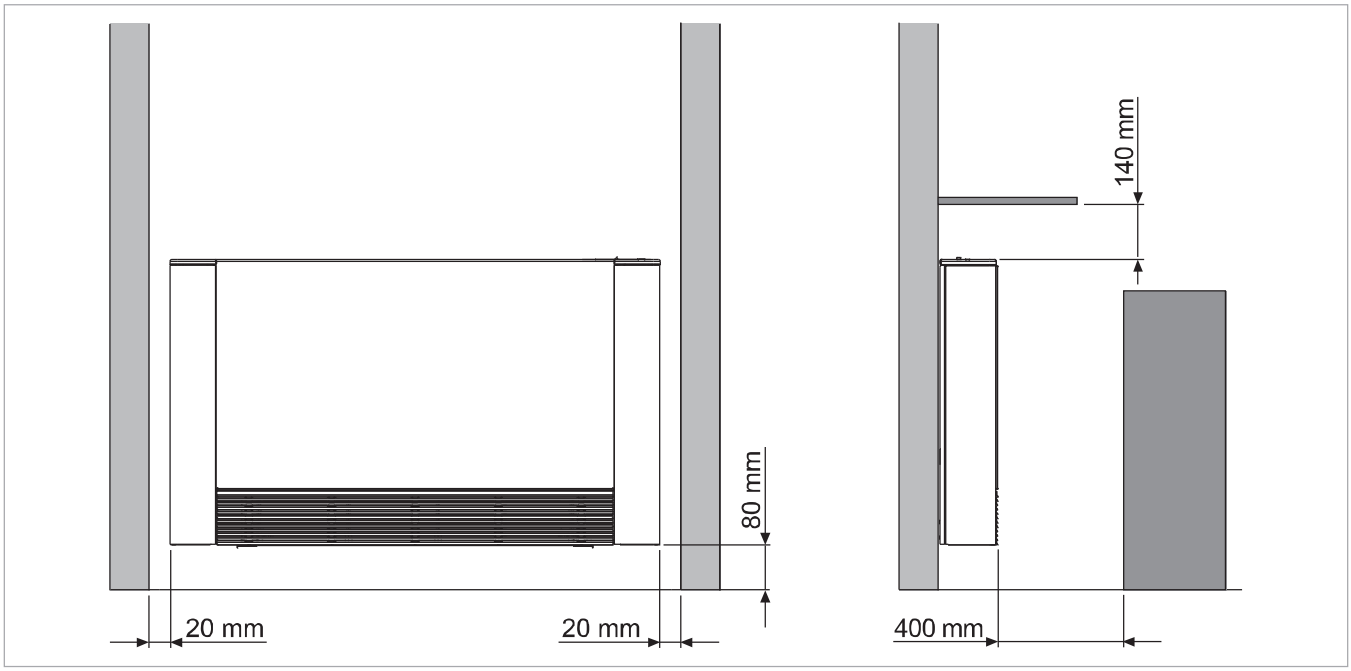
⚠ Make sure that:
- the wall on which the unit is to be installed is strong enough to support the weight;
- the part of the wall being used does not have pipes or electric wires passing through;
- the wall being used is perfectly flat;
- there is an area free of obstacles which could interfere with the inlet and outlet air flow;
- the wall being used is preferably an outside perimeter wall to allow the discharge of the condensation outside;

1.6 Installation modes

The following descriptions of the various mounting phase and the relative designs refer to a version of the machine with fixtures on the left.
The operations for the mounting of machines with fixtures on the right are exactly the same.
Only the images are to be considered as a mirror image.
To ensure that the installation is performed correctly and that the appliance will perform perfectly carefully follow the instructions indicated in this manual. Failure to respect the rules indicated not only can cause malfunctions of the appliance but will also invalidate the warranty and hence shall not respond for any damage to persons, animals or property.

1.7 Minimum installation distances

Figure indicates the minimum mounting distances between the wall-mounted cooler-convector and furniture present in the room.

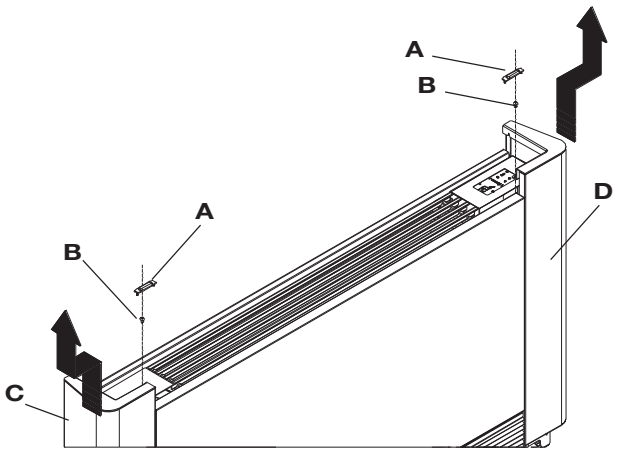


1.8 Side opening

- On the left-hand side lift the cover that protects the screw, loosen the screw that fixes the left panel, then move it slightly to the left and lift it up.
- On the opposite side, lift the cover that protects the screw and unscrew it.
- Move the side panel slightly to the right and lift it out.

A	cover
B	fixing screws

C	left panel
D	right panel



1.9 Vertical floor or wall installation

When mounting on the floor with support feet, refer to the individual instructions leaflets supplied and the relative manual for the mounting of the feet.

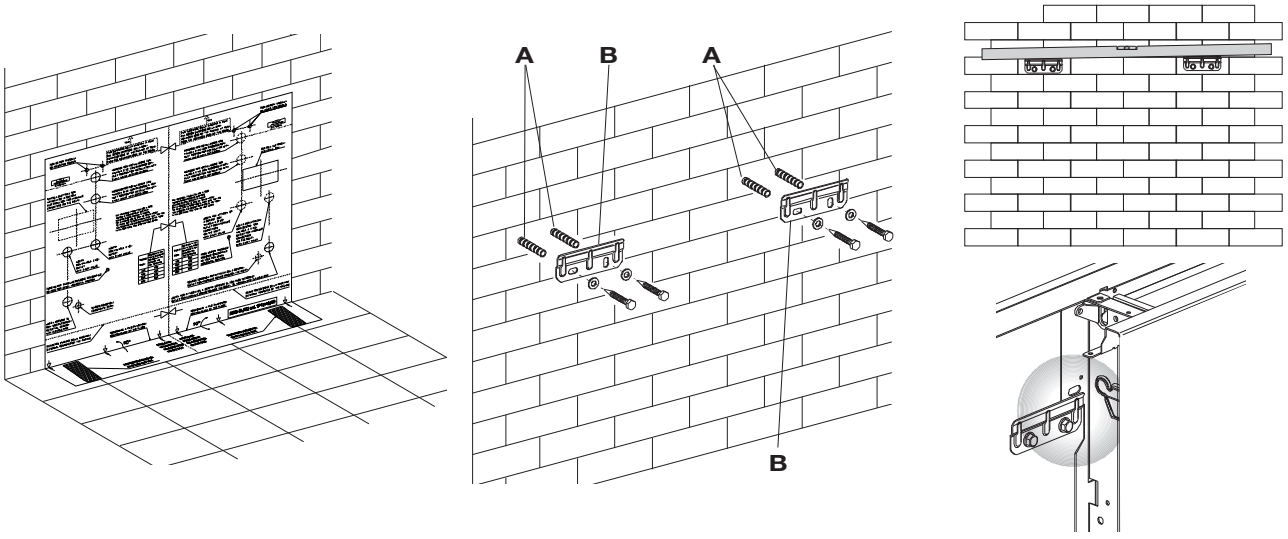
Using the paper template, trace the position of the two fixing brackets on the wall. Use a suitable drill to make the holes with and insert the toggle bolts (2 for each bracket); fix the two brackets. Do not over-tighten the screws so that the brackets can be adjusted with a spirit level.

Fully tighten the four screws to block the two brackets. Check the stability by manually moving the brackets to the right and to the left, up and down.

Mount the unit, checking that it fits correctly onto the brackets and checking that it is stable.

A	toggle bolts

B	brackets



1.10 Hydraulic connections

	U.M.	200	700	900
Pipeline diameter	mm	12	14	16

The choice and sizing of the hydraulic lines must be made by an expert who must operate according to the rules of good practice and the laws in force, taking into account that undersized pipes cause a malfunction.

To make the connections:
- position the hydraulic lines
- tighten the connections using the "spanner and counter spanner" method
- check for any leaks of liquid
- coat the connections with insulating material.

The hydraulic lines and joints must be thermally insulated.

Avoid partially insulating the pipes.

Do not over-tighten to avoid damaging the insulation.

Use hemp and green paste or similar to seal the threaded connections; the use of Teflon is advised when there is anti-freeze in the hydraulic circuit.

1.11 Condensation discharge

The condensation discharge network must be suitably sized (minimum inside pipe diameter 16 mm) and the pipeline positioned so that it keeps a constant inclination, never less than 1%. In the vertical installation, the discharge pipe is connected directly to the discharge tray, positioned at the bottom of the side shoulder underneath the hydraulic fixtures.
- If possible, make the condensation liquid flow directly in a gutter or a "rainwater" discharge.
- When discharging directly into the main drains, it is advisable to make a siphon to prevent bad smells returning up the pipe towards the room. The curve of the siphon must be lower than the condensation collection bowl.
- If the condensation needs to be discharged into a container, it must be open to the atmosphere and the tube must not be immerged in water to avoid problems of adhesiveness and counter-pressure that would interfere with the normal outflow.
- If there is a height difference that could interfere with the outflow of the condensation, a pump must be mounted:
- in a vertical installation mount the pump under the lateral drainage tray;

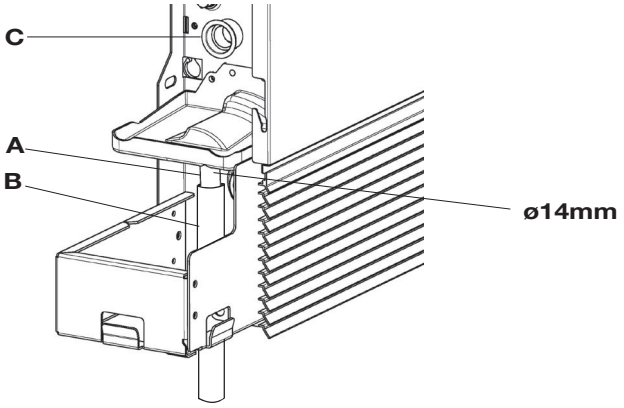
Such pumps are commonly found in the market place.

However, on completion of the installation it is advisable to check the correct outflow of the condensation liquid by slowly pouring about ½ l of water into the collection tray in about 5-10 minutes.

Mounting the condensation discharge pipe in the vertical version

Connect a union pipe to the outlet of the condensate drip tray and fixing it adequately. Check that the extension drip is present and correctly installed.

A	discharge fitting
B	tube for the outflow of the liquid
C	extension drip



1.12 Filling the system

When starting up the system, make sure that the hydraulic unit lockshield is open. If there is no electric power and the thermo-valve has already been powered use the special cap to press the valve stopper to open it.

1.13 Evacuating air while filling the system

- Open all the system interception devices (manual or automatic);
- Start the filling by slowly opening the system water filling tap;
- For units installed in a vertical position using a screw driver vent any air from the battery through the breather valve.
- When water starts coming out of the breather valve close these and continue filling the system.

Check the hydraulic seal of the gaskets.
It is advisable to repeat these operations after the appliance has been running for a few hours and periodically check the pressure of the system.

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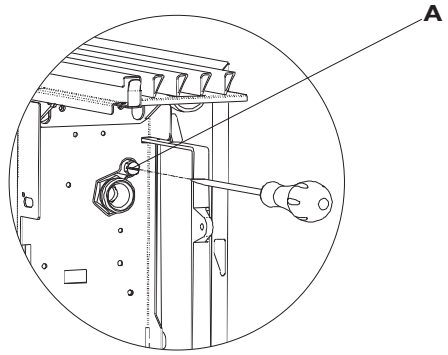
A	Venting of the battery



1.14 Electrical connections

Make electrical connections according to the requirements set out in sections General Warnings and Fundamental safety rules.
By reference to the diagrams present in the Chapter referring to the mounting, and connecting of the on board control panel.

Before doing any work, make sure the power is switched off.
The unit must be connected to the mains through a multipolar switch with minimum contact opening of at least 3mm or with a device that allows the complete disconnection from the device under the overvoltage conditions category III.

1.15 Maintenance

Routine maintenance is indispensable to keep the Air Leaf cooler-convector in perfect working condition, safe and reliable over the years. This can be done every six months for some interventions and annually for others, by the Technical Service Assistance, technically authorised and prepared, using always original spare parts.

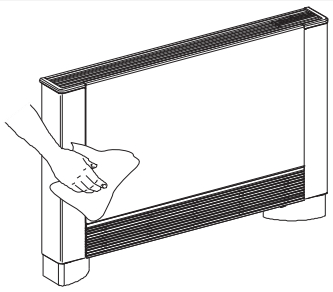
1.16 Cleaning the outside

⚠ Before every cleaning and maintenance intervention, disconnect the appliance from the mains by switching off the master switch.

⚠ Wait until the parts have cooled down to avoid the risk of burns.

⚠ Do not use abrasive sponges or abrasive or corrosive detergents to avoid damaging the painted surfaces.

When necessary, clean the outer surfaces of the Air Leaf cooler-convector with a soft cloth damp cloth.



1.17 Cleaning air suction filter

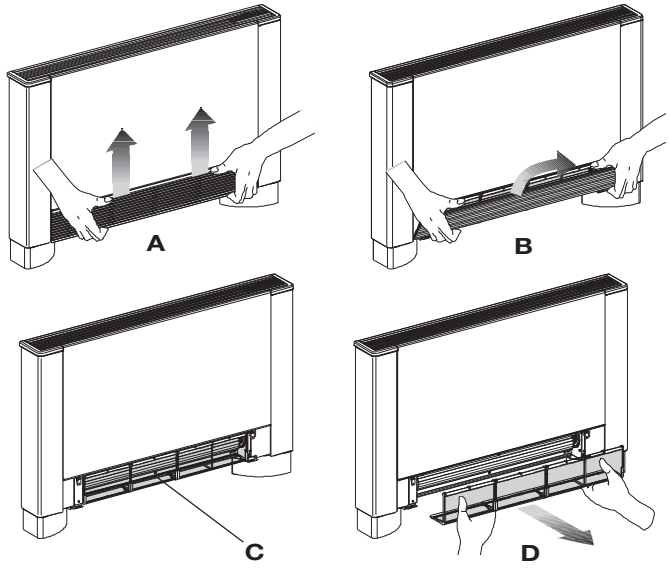
After a period of continuous operation and depending on the concentration of impurities in the air, or when he intends to restart the plant after a period of inactivity, proceed as described.

Extraction of filter cells in the versions with aspiration grill with flaps

- extract the front grill by lifting it slightly and turn it until it comes right out of its seat;
- extract the filter, pulling it horizontally outwards.

A	front grille
B	See grid

C	filter
D	extraction filter



Cleaning filtering seats

- suck up the powder with a vacuum cleaner
- wash the filter with running water without using detergents or solvents, and leave to dry.
- Remount the filter on the cooler-convector (fig. 32 ref. A), taking care to insert the lower flap into its seat.

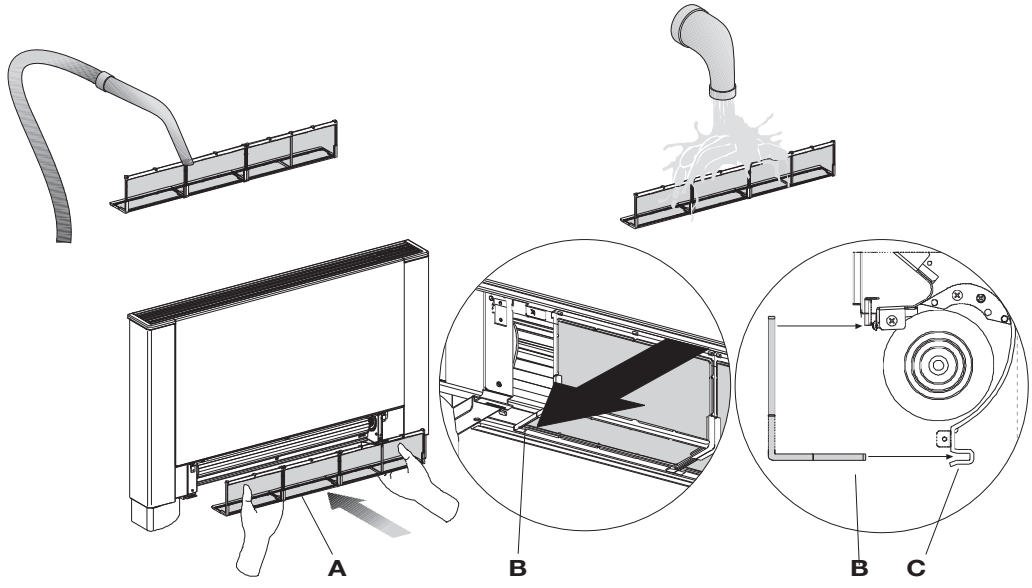
⛔ It is forbidden to use the unit without the net filters.

⚠ The appliance is fitted with a safety switch that prevents the operation of the cooler with the mobile panel missing or out of position.

⚠ After finishing the cleaning of the filter, check that the panel is mounted correctly.

A	filter
B	lower edge

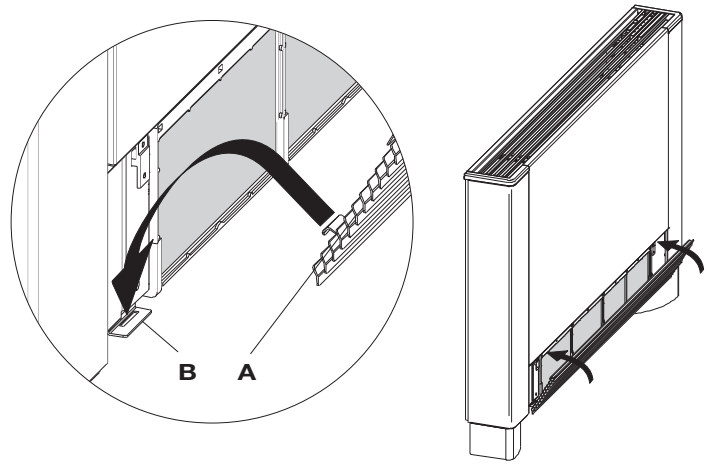
C	The filter housing



Ending Cleaning Operations

- For the versions with a grill with flaps, insert the two lugs into the special slots, turn it and hook it up with a slight tap on the upper part.

A	tabs
B	slots



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1.18 Energy saving tips

- Always keep the filters clean;
- As far as possible, keep the doors and windows closed in the room being conditioned;
- limit where possible the effect of direct sun rays in the rooms being conditioned (use curtains, shutters etc.)

TROUBLESHOOTING

2.1 Troubleshooting

⚠ In case of water leaks or anomalous functioning immediately cut off the power supply and close the water taps.

⚠ Should one of the following anomalies occur, contact an authorised service centre or an authorised qualified person, but do not intervene personally.

- The ventilation does not activate even if there is hot or cold water in the hydraulic circuit.
- The appliance leaks water during the heating function.
- The appliance leaks water only during the cooling function.
- The appliance makes an excessive noise.
- There are formations of dew on the front panel.

2.2 Table of anomalies and remedies

The interventions must be carried out by a qualified installer or by a specialised service centre.

Effect	Cause	Remedy
A delayed activation of the ventilation respect to the new temperature or function settings.	The circuit valve needs some time to open and as a result the hot or cold water takes time to circulate in the appliance.	Wait for 2 or 3 minutes to open the circuit valve.
The appliance does not activate the ventilation.	No hot or cold water in the system.	Check that the water boiler or cooler are functioning correctly.
The ventilation does not activate even if there is hot or cold water in the hydraulic circuit.	The hydraulic valve remains closed.	Dismount the valve body and check if the water circulation is restored.
		Check the working efficiency of the valve by powering it separately with 230V. If it activates the problem could be the electronic control.
	The fan motor is blocked or burnt out.	Check the windings of the motor and thefree rotation of the fan.
	The micro-switch that stops the ventilation when the filter grill is opened does not close correctly.	Check that by closing the grill the micro-switch contact is activated.
	The electrical connections are not correct.	Check the electrical connections.
The appliance leaks water during the heating function.	Leaks in the hydraulic connections of the system.	Check the leak and fully tighten the connections.
	Leaks in the valve unit.	Check the state of the gaskets.
There are formations of dew on the front panel.	Thermal insulation unstuck.	Check the correct positioning of the thermo-acoustic insulation paying attention to that in the front above the finned battery.
There are drops of water on the air outlet grill.	In situations of high humidity (>60%) condensation could form, especially at the minimum ventilation speeds.	As soon as the humidity starts falling the phenomenon disappears. In any case the presence of a few drops of water in the appliance does not indicate a malfunction.

Effect	Cause	Remedy
The appliance leaks water only during the cooling function.	The condensation bowl is blocked.	Slowly pour a bottle of water in the low part of the battery to check the drainage; if necessary, clean the bowl and/or increase the inclination of the drainage pipe.
	The condensate drain pipe does not have an adquate fall.	
	The connection pipes and the valve unit are not insulated well.	Check the insulation of the pipes.
The appliance makes a strange noise.	The fan touches the structure.	Check the clogging of filters and clean them if necessary
	The fan is unbalanced.	The unbalancing causes excessive vibrations of the machine; replace the fan.
	Check the clogging of filters and clean them if necessary	Clean the filters

Mounting, setting and connection of on-board machine control panels

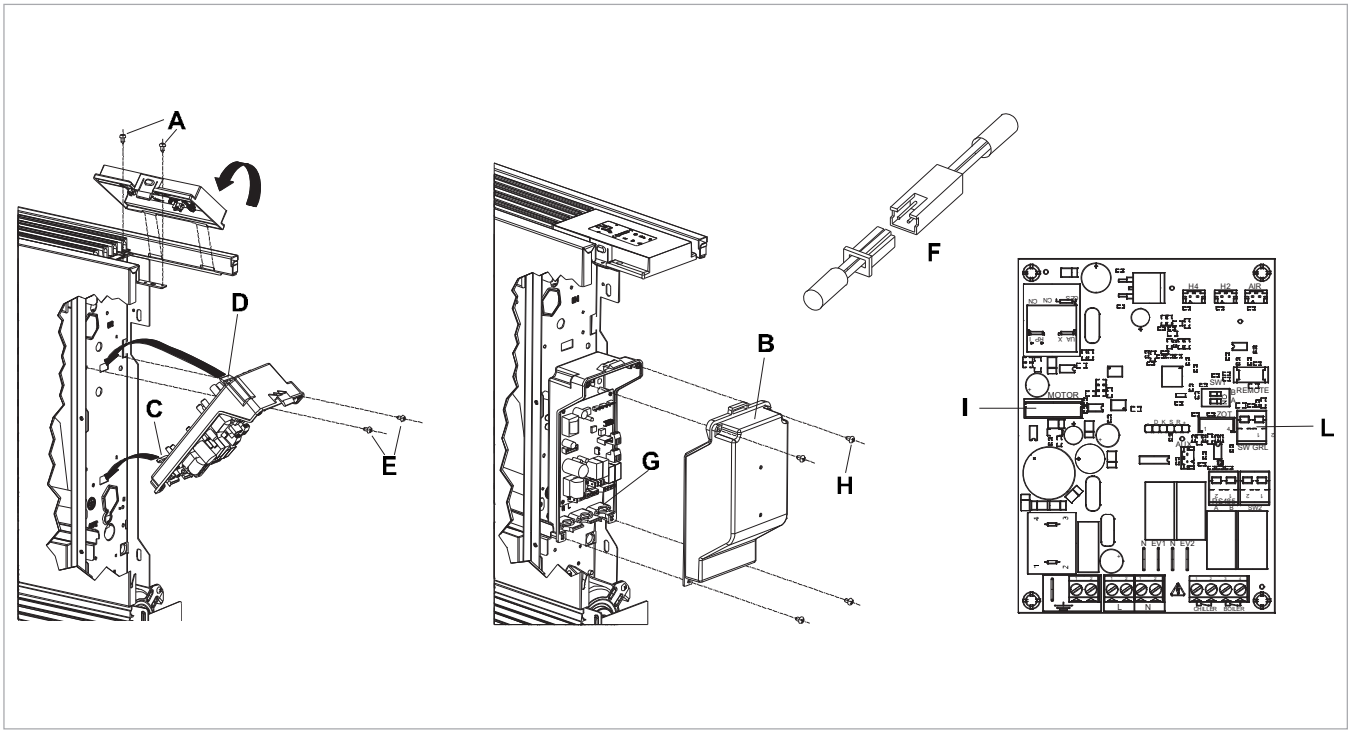
The controls have two independent free contacts to control a chiller and a boiler and a presence input. The 2-pipe versions have a 230V output for powering the summer and winter solenoid valve.

3.1 Mounting

Place the control panel into its housing in the upper part of the cooler-convector/cooler-radiator and fix it with the two supplied screws (ref. A).
To install the connection box:

- open the box (ref. B);
- insert the lower lug into the special slot (ref. C) on the side of the appliance;
- hook the upper part of the box to the side (ref. D);
- fix it with the two supplied screws (ref. E);
- fix the earth wire to the cooler-convector/cooler-radiator structure using the supplied screws (the minimum force of about 2N must be used when screwing-up);
- connect the quick connector on the motor (MOTOR) to that on the board (ref. I) *;
- connect the water probe connector (ref. F) on the Cooler-convector/cooler-radiator;
  the water temperature probe checks the temperature inside the batteries and determines the start of the fan based on the set parameters (minimum winter and maximum summer functions). Check that it is inserted correctly in the well on the battery.
- make the electrical connections, order the wiring and fix the wires using the 3 supplied clamps (ref. G);
- close the box and fix with the 4 screws (ref. H);
- mount the aesthetic side panel on the Cooler-convector/cooler-radiator;
- tighten the upper screw on the control panel;

* For versions with hydraulic connections on the right refer to the relevant paragraph.



3.2 Setting auxiliary functions dip-switches A and B

There are two dip-switches on the electronic control panel for setting the functions of the appliance as required.

- Use cursor A to modify the night function logic:
  In the ON position the ventilation is inhibited thus letting the machine heat the room through natural radiation or convection as happens with traditional radiators; in the OFF position the fan functions normally.
- Set cursor B to ON (in cooling only) to enable the continual ventilation at the minimum speed, even after the set point has been reached to ensure a more regular functioning of the temperature probe. Passing to heating will cancel this condition; set the cursor set to OFF to disable this function.

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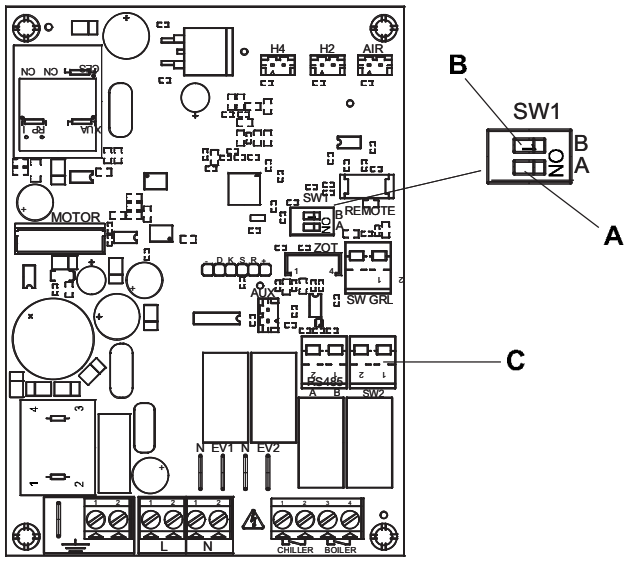
3.3 CP presence contact input connection

When the contact connected to the SW2 (ref. C) input is closed all the users connected will be switched off.

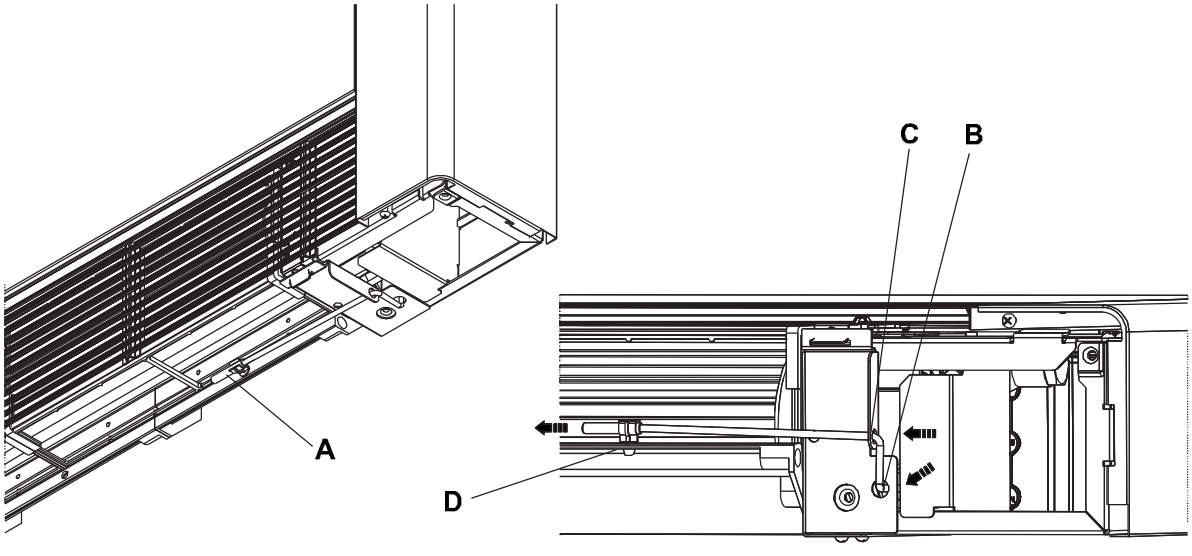
⚠ The input cannot be connected in parallel to one of another electronic board (use separate contacts).



3.4 Mounting air temperature probe

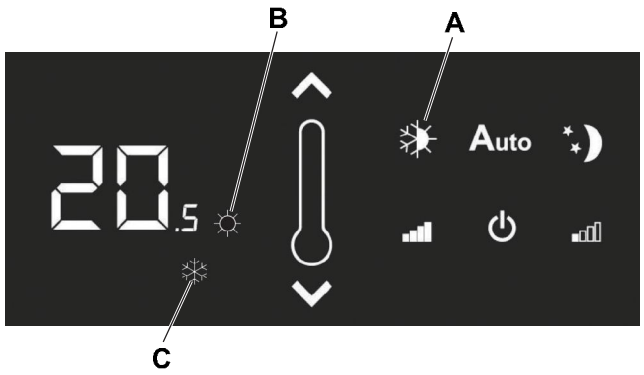
To position the temperature probe (ref. A):

- pass the probe through the hole on the shoulder (ref. B)
- insert the probe in the lower hole (ref. C)
- fix the probe in the special hook (ref. D).



3.5 Setting automatic cooling/heating regulation system

When set to this condition the control can automatically choose between cooling or heating, excluding the normal manual selection. This regulation system can only be activated by an authorised installer or qualified technician. To activate this function, keep the sum/win button (ref. A) pressed for 10 seconds until the blue and red LEDs light up simultaneously. To return again to the manual cooling only or heating only condition press the sum/win button (ref. A) for 10 seconds until the blue and red LEDs switch off. Press the button again to select the winter function. Check the functioning of the Red LED (alight when the setpoint is higher than the room temperature, both switched off when the setpoint is lower). Press the sum/win button once to select the summer function. Check the functioning of the Blue LED (alight when the setpoint is lower than the room temperature, both switched off when the setpoint is higher). This selection will be maintained even if there is a power black-out.

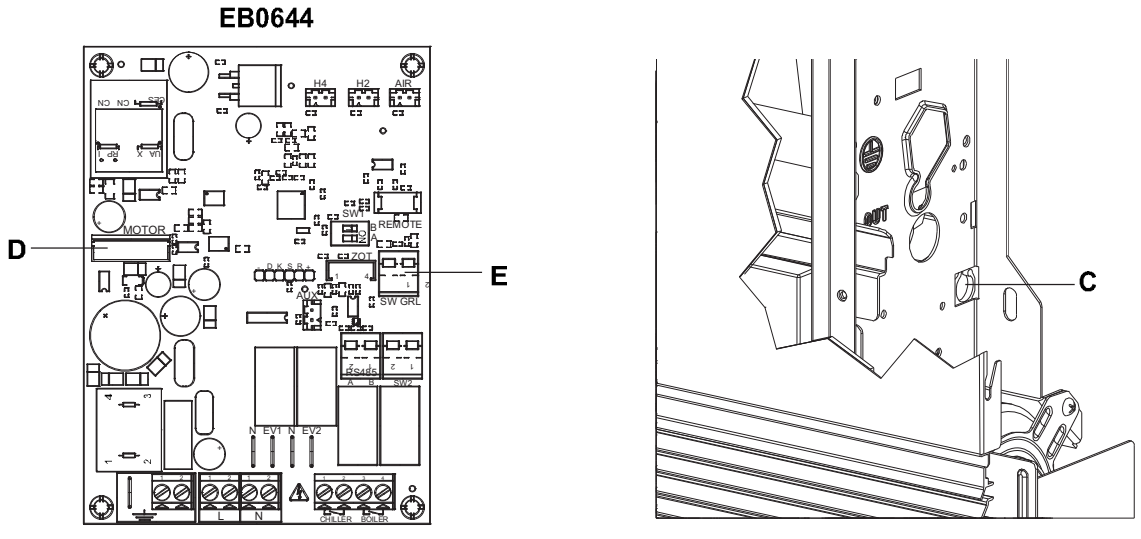


3.6 RS versions connection

In the RS versions, connect the relevant quick connector to the output of electrovalve Y1 provided on the electronic board (see Connections paagraph).

3.7 Water connection on the right side versions motor connection

In the event one needs to invert the position of the hydraulic battery connections from the left side to the right side of the device, the electric connections box is also inverted, but since the fan motor and the grid safety microswitch are constrained in the original position, one must use the special kit BB0646, available as an accessory.
The cable, equipped with male/female connectors, must be connected on the right side to the motor and on the left side to the quick connector of the motor present on the board (ref.D).
Also, the two terminals from the grid safety microswitch must be extended and connected on the left side to contact S1 present on the board (ref.E).
The cables are fed through the back of the device through the specific hole (ref.C).



3.8 Connections

H2	hot water temperature probe
AIR	air temperature probe
M1	fan motor DC inverter
S1	grill safety micro-switch (SL versions only)
Y1	hot water solenoid valve (230V/50Hz 1A powered output)
L-N	230V/50Hz electrical power supply connection
BO	boiler go-ahead output (free contact max 1A)

CH	chiller go-ahead output (free contact max 1A)
FF	output for servomotor mobile aspiration panel (230V/50Hz 1A powered output)
CP	presence sensor input (if closed, the fan coil goes into stand-by.)
RS	RS version wiring

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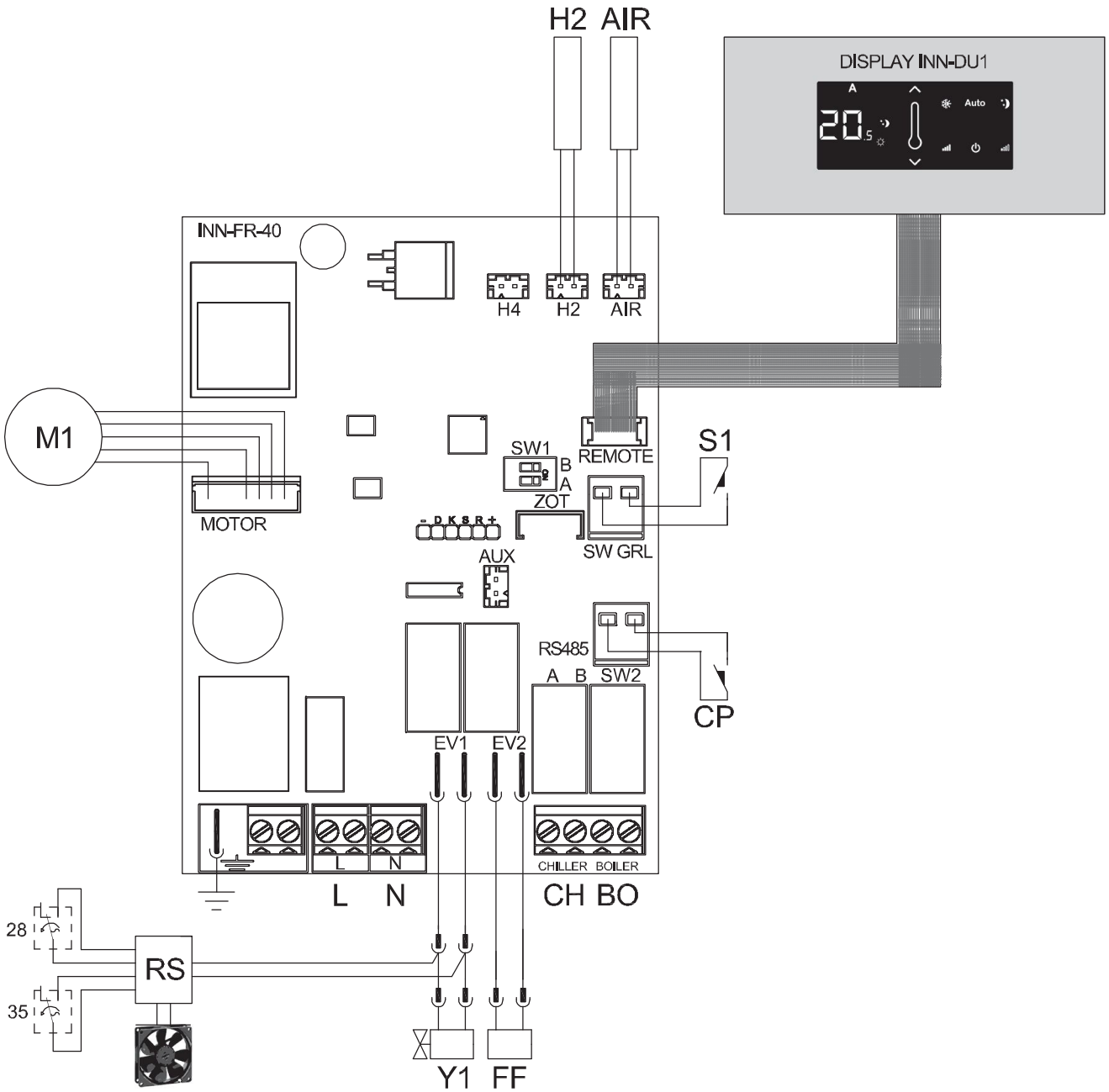


3-WAY VALVE WITH THERMO-ELECTRIC HEAD AND BYPASS WITH OVERPRESSURE VALVE KIT

Consists of an automatic valve with thermo-electric head, a by-pass with adjustable overpressure valve and a lockshield, fitted with micrometric adjustment, capable of balancing the system load losses. The kit contains the insulation to be mounted on the valve, on the by-pass and on the lockshield.

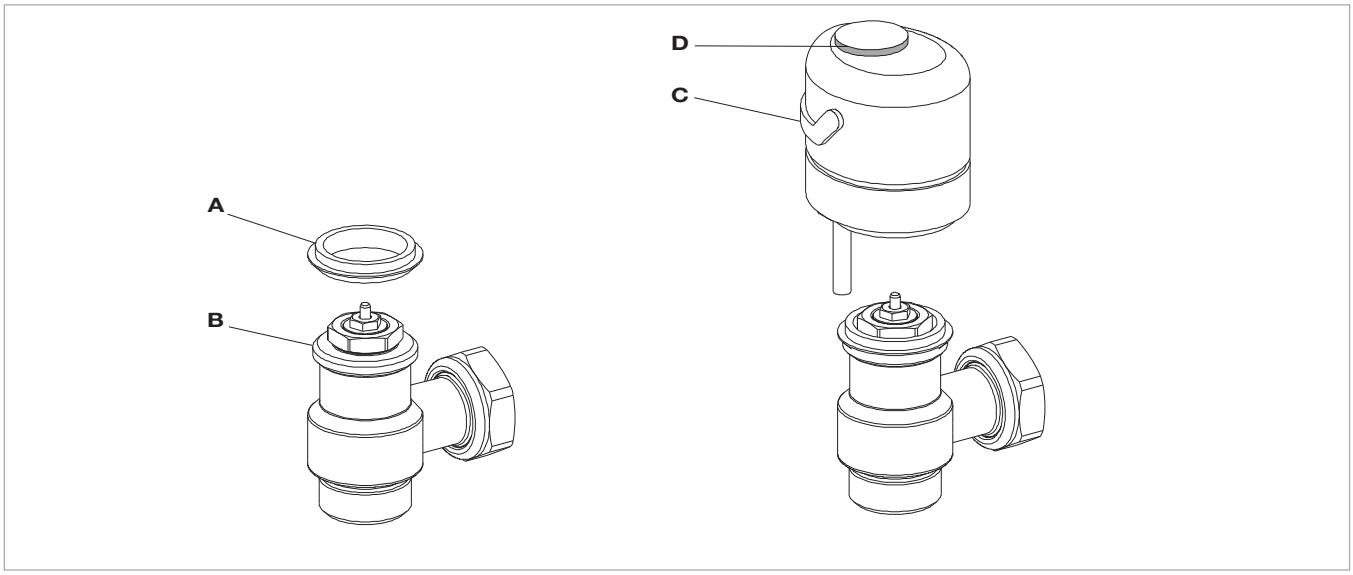
4.1 Mounting the thermostatic head

Tighten the plastic disc to the valve body. Attach the head to the valve body. To facilitate the system mounting, filling and venting operations, even without electric power, the thermostatic head is supplied in the open position. The first time that it is powered electrically, the head will open completely and then it will switch to the completely 'closed' position when the power is cut off. The blue coloured strap that can be seen on the upper cursor of the valve indicates the open status.

⚠ Do not use metallic tools for mounting the head, only bare hands to avoid damaging the components.

A	plastic disc
B	valve body

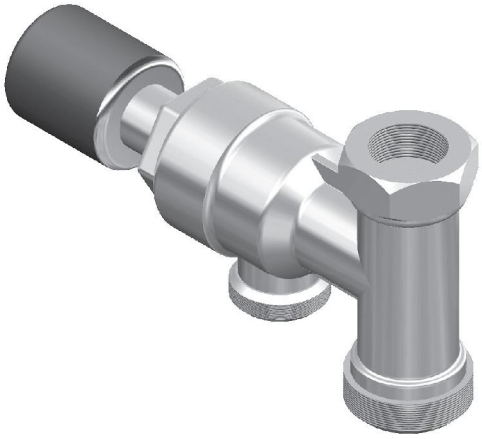
C	head
D	upper cursor



4.2 By pass

The by-pass is an overpressure valve that keeps the system balanced when the 2-way supply valve in the cooler-convector/cooler radiator is closed. Inside, there is a plug which, under normal conditions, remains closed. If, due to the closure of the 2-way valve, it is subjected to a stress that is more than that of the calibration value, it opens so that the water can circulate through the by-pass circuit.
The valve can be set depending on the model:

	U.M.	**200**	**700**	**900**
set the calibration to	bar	0,2	0,3	0,4



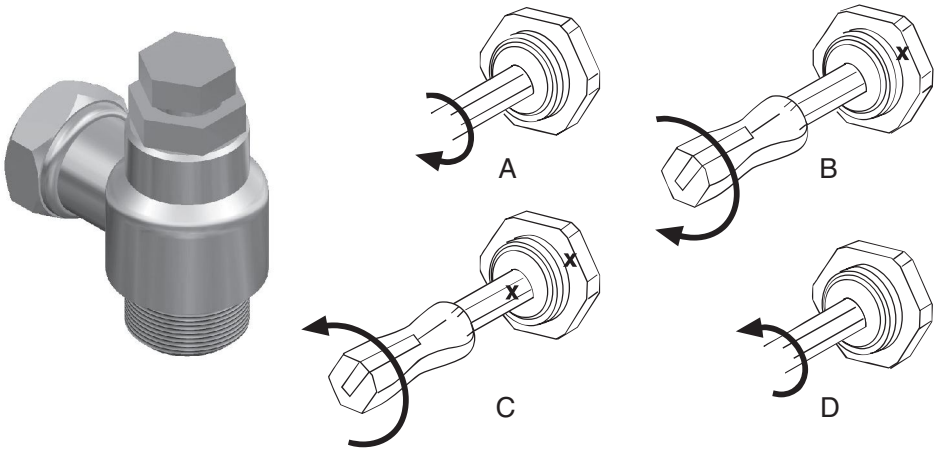
4.3 Lockshield adjustment

The lockshields supplied with the hydraulic kits provide an adjustment that balances the system load losses. To ensure a correct adjustment and balancing of the circuit, follow the procedure indicated below:

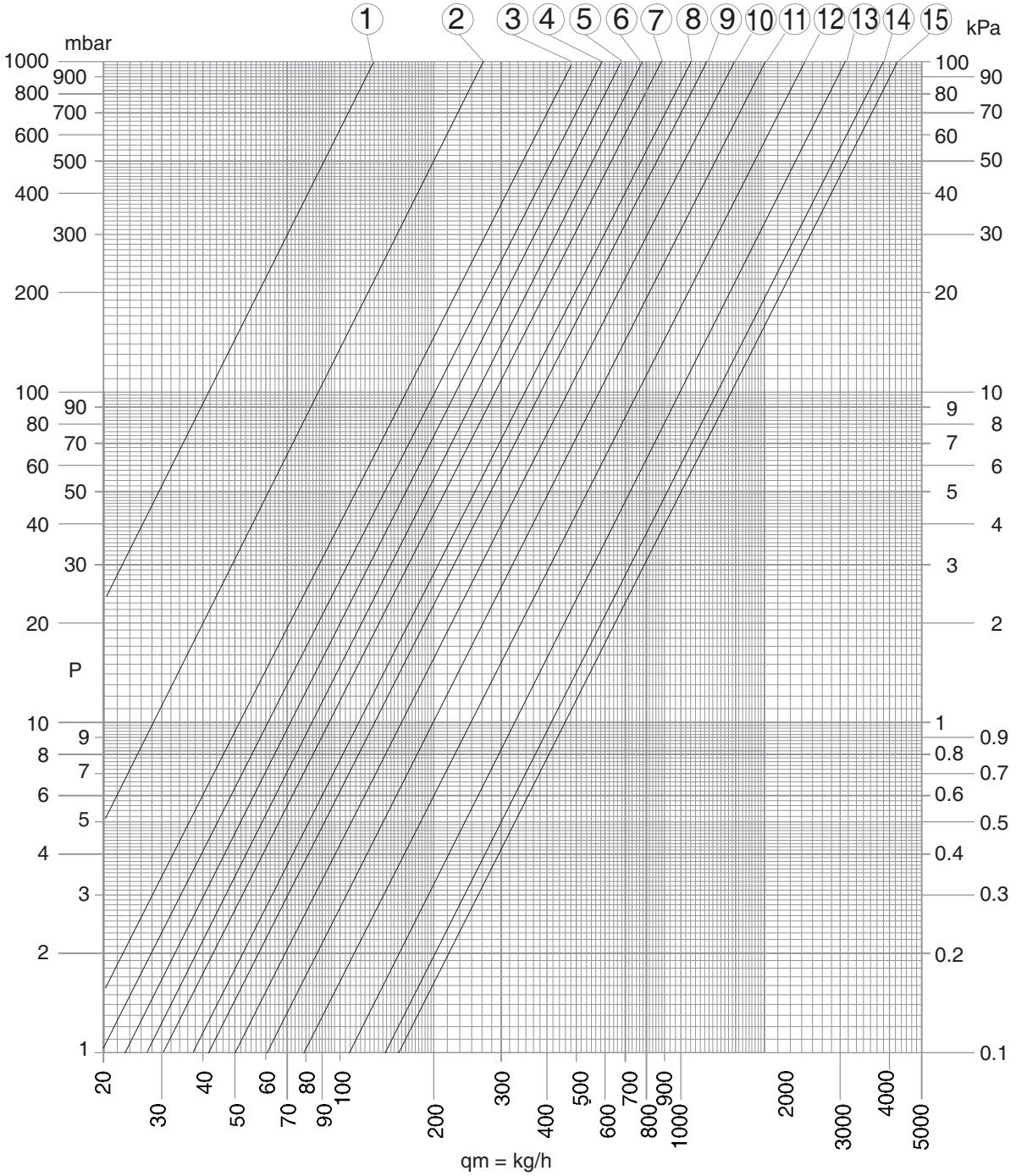
- With a screwdriver, loosen and remove the slotted grub screw inside the hexagonal head.
- Close the adjustment screw using a 5 mm Allen key (A)
- Re-tighten the slotted grub screw then mark the reference point for the adjustment with an “x” (B).
- Align the screwdriver with the “x”, then open with a number of turns (C) according to diagram Äp-Q shown on page 38.

⚠ The number of turns refers to the micrometric screw

Then fully open the screw (D). Now the pre-adjustment has been set and will not change if there are repeated openings or closings with the Allen key.

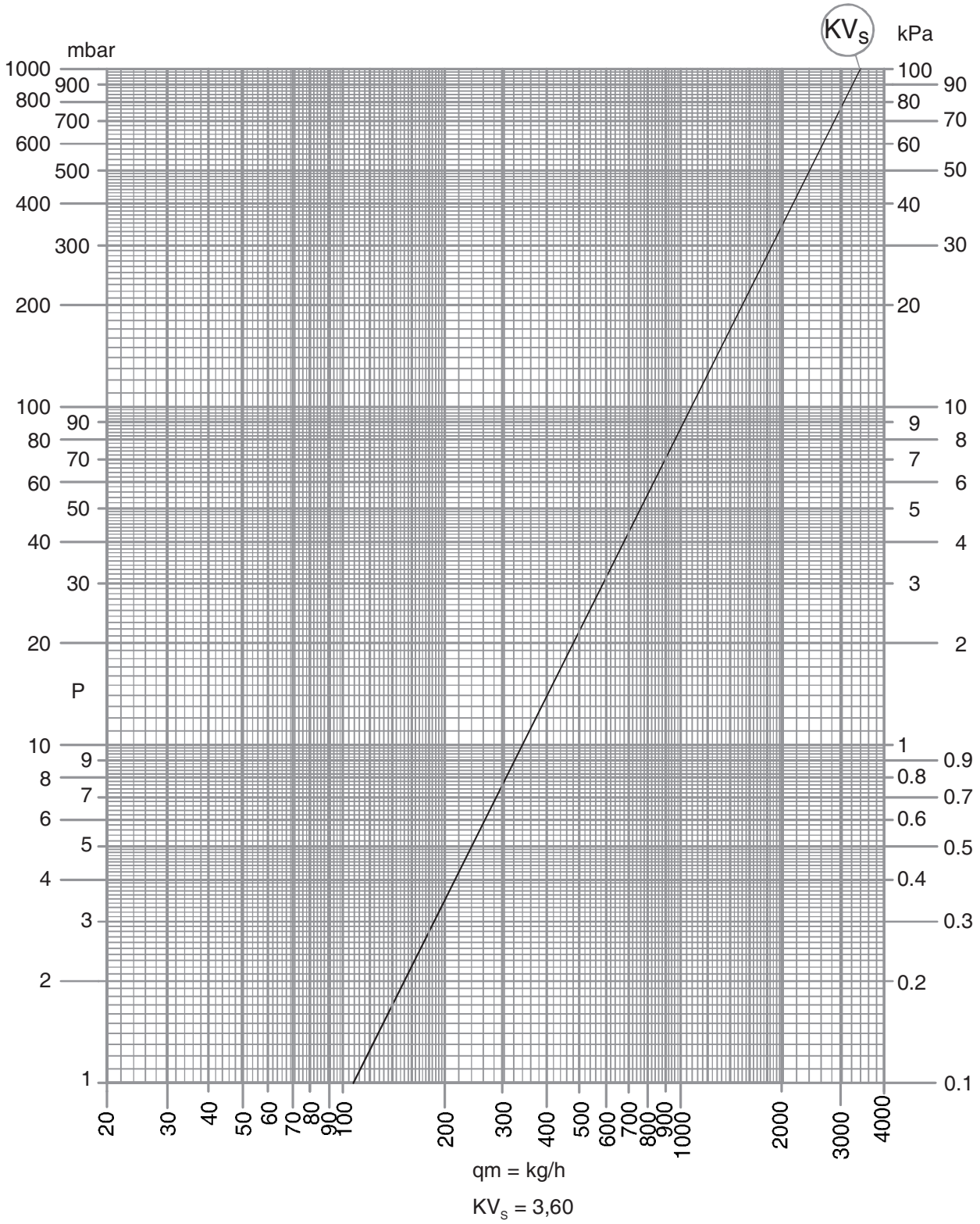


load losses based on the adjustment of the lockshield.



POS.	1	2	3	4	5	6	7	8	10	11	12	13	14	15
ADJ	1 2/4	2	2 1/4	2 1/2	2 3/4	3	3 1/4	3 2/4	4	4 1/2	5	6	8	T.A.
Kv	0.13	0.28	0.49	0.62	0.70	0,82	0,95	1,33	1,57	1,95	2,47	3,34	4,18	4,52

load losses in completely open position of 2-way valve.



4.4 Connections

The choice and sizing of the hydraulic lines must be made by an expert who must operate according to the rules of good technique and the laws in force.

To make the connections:
- position the hydraulic lines
- tighten the connections using the “spanner and counter spanner” method
- check for any leaks of liquid
- coat the connections with insulating material

The hydraulic lines and joints must be thermally insulated.

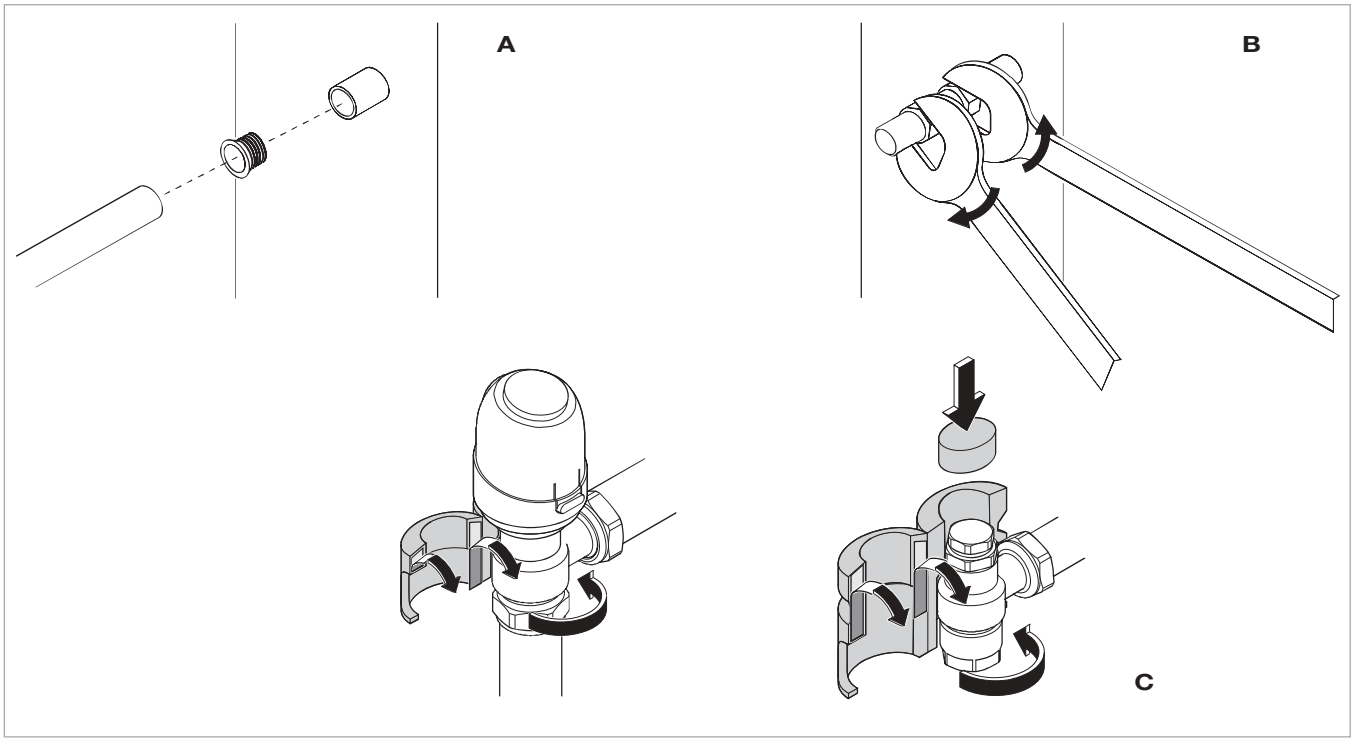
Avoid partially insulating the pipes.

Do not over-tighten to avoid damaging the insulation.

Use hemp and green paste or similar to seal the threaded connections; the use of Teflon is advised when there is anti-freeze in the hydraulic circuit.

A	hydraulic lines
B	spanner and counter spanner

C	coat the connections with insulating material



4.5 3-Way valve with thermo-electric head and bypass with overpressure valve

Consists of an automatic valve with thermo-electric head, a by-pass with adjustable overpressure valve and a lockshield, fitted with micrometric adjustment, capable of balancing the system load losses. The kit contains the insulation to be mounted on the valve, on the by-pass and on the lockshield.

- Remove the side panel
- Assemble the components as indicated in figure:
  - floor mounted version.
  - wall mounted version (with optional EK/EK "L" union code AI0203).
- Apply the supplied insulation.

⚠ When the hydraulic components have been mounted, connect the thermo-electric head connectors with the wiring connectors on the machine.

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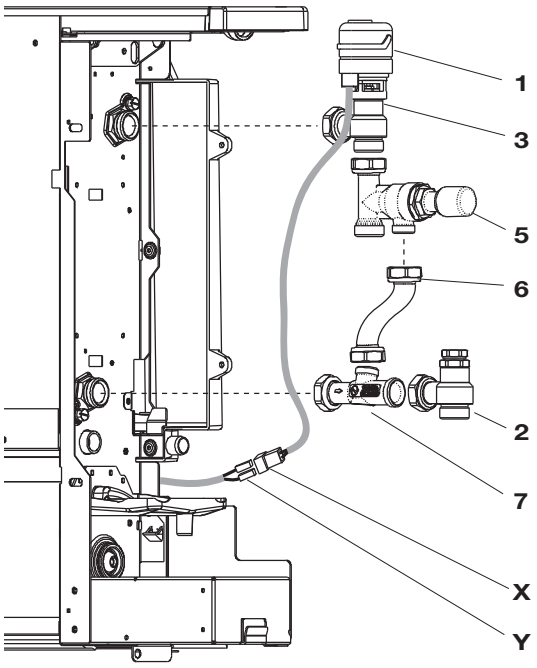
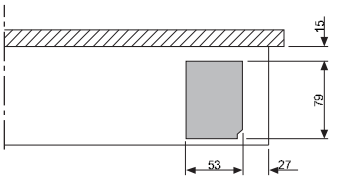
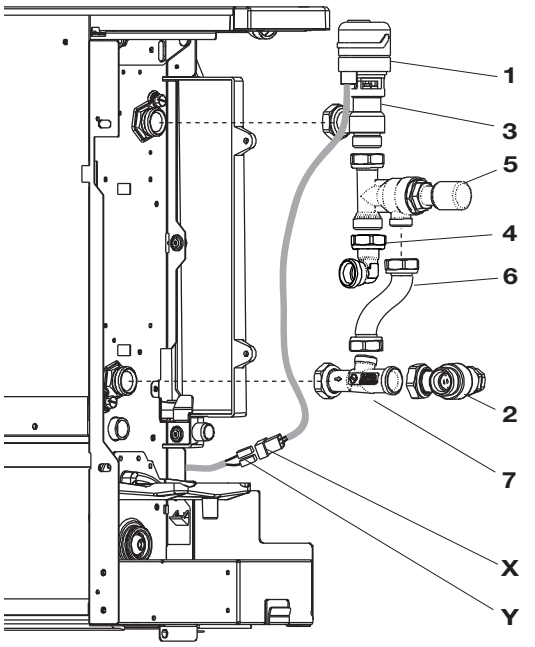
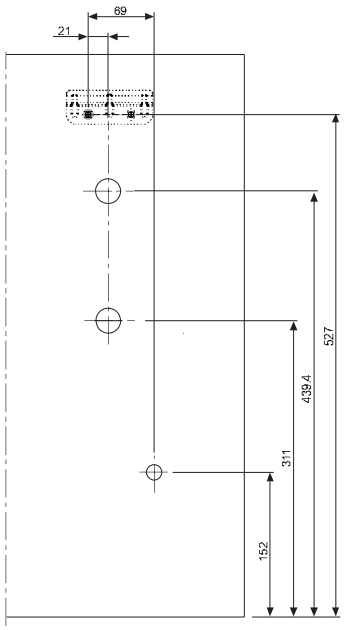
1	thermo-electric head (n.1)
2	lockshield (n.2)
3	2-way valve(n.1)
4	90° union (n.1 optional)
5	by-pass (n.1)
6	1/2" flexible tube 110 (n.1)
7	outlet union (n.1)
X	hermo-electric head connectors
Y	wiring connectors









USE

5.1 Electronic TOUCH LCD command panel with continuous modulation on board the machine

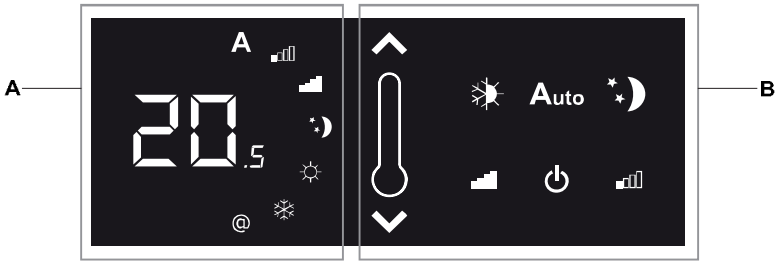
The command makes environment temperature adjustment completely autonomous through the AUTO, SILENT, NIGHT and MAX programs, through a probe in the lower part of the device, and guarantees antifreeze safety, even when in standby.
The control panel has function memory, so all the settings are not lost in case of switch off or in the event of power failure.

⚠ The commands cannot be installed on SLI and RSI versions.

⚠ After 20 seconds from the last action, the panel light purposely dims down for greater comfort during night time, and the environment temperature is shown on the display. Maximum luminosity is restored when pressing any key.

⚠ Thanks to the temperature probe, it guarantees anti-freeze safety, even when in stand-by.

A	Display
B	Keys



5.2 Display

The display also shows status and eventual alarms through the 8 specific symbols:

A	Automatic function selected
	Silent function selected
	Maximum ventilation speed selected
	Night function selected

	Active heating
	Active cooling
@	Webserver supervision active
	Alarm signal

5.3 Key function

The various functions are set with the 8 backlit keys:

^	Temp + allows to increase set temperature.
v	Temp - allows to decrease set temperature.
	Heating / Cooling : allows to switch operation mode between heating and cooling.
Auto	Makes ventilation speed adjustment completely automatic between a minimum and maximum value.

	Night function : ventilation speed is limited to a very contained value, and the set temperature is automatically changed.
	Max: allows to set the maximum ventilation speed.
	ON/Stand-By: Allows to activate the device or to put it in standby.
	Silent : allows to limit the ventilation speed to a more contained maximum value.

5.4 General switch on

To manage the device through the control panel, it must be connected to the mains.
In case of a general switch on the mains supply line, it must be switched on.
- Switch on the system with the main switch.

5.5 Activation

To activate the device

key	Operation	Display
	Press ON standby.	Off
	Select one of the 4 operation modes by pressing the relative key.	

5.6 Heating / cooling operation mode setting

key	Operation	Display
	Keep Heating / Cooling pressed down for about 2 seconds to switch the operation mode between heating and cooling, shown through the 2 active heating or active cooling symbols which appear.	
	When heating, the symbol is switched on when the set point is higher than the environment temperature; they are both switched off when the set point is lower.	
	When cooling, the symbol is switched on when the set point is lower than the environment temperature; they are both switched off when the set point is higher.	
	In the 4 pipe version, with activated automatic cooling/heating adjustment system, the simultaneous switch on of the 2 symbols indicates reaching of a set-point (neutral band).	

Flashing of one of the 2 symbols indicates that the water temperature (hot or cold) is not satisfactory, and the ventilator is stopped until the water temperature achieves an adequate value to satisfy the request.
If the water temperature does not reach a suitable value for the requested operation, after 10 minutes, the command is blocked, the E5 alarm indicator symbol appears. Unlocking occurs automatically after 45 minutes, or manually by pressing one of the 8 keys.

5.7 Stand By

key	Operation	Display
	Keep the ON standby key pressed for about 2 seconds. The lack of any light indicators from the display indicates "standby" status (no function).	Off

When the command is in this operation mode, it guarantees anti-freeze safety. In case the environment temperature should drop below 5 °C, the hot water solenoid valve and boiler consent outputs are activated.

5.8 Temperature selection

key	Operation	Display
	Set the desired temperature value, shown on the 3 digits of the display, with the aid of the two increase and decrease keys.	

The adjustment range goes from 16 to 28°C, with 0.5°C resolution, but over range values of 5°C and 40°C are also consented.
Set these values only for brief periods, then adjust the selection on an intermediate value.
The command is very precise; reach the desired value and wait for the command to carry out the adjustment based on the effective environment temperature detected.

5.9 Automatic function

key	Operation	Display
Auto	Keep the AUTO key pressed. Activation of the function is indicated by the relative symbol appearing on the display.	A

Ventilation speed adjustment will occur automatically between a minimum and a maximum value, according to the effective distance of the environment temperature from the set point, based on a PI type algorithm.

5.10 Silent function

key	Operation	Display
	Keep the Silent key pressed. Activation of the function is indicated by the relative symbol appearing on the display.	

The ventilation speed is restricted to a more contained maximum value.

5.11 Night function

key	Operation	Display
	Keep the Night operation key pressed. Activation of the function is indicated by the relative symbol appearing on the display.	

By selection this operation mode, the ventilation speed is limited to a very contained value, and the set temperature is automatically changed as follows:
- decreased by 1 °C after one hour and an additional degree after 2 hours in heating function;
- increased by 1 °C after one hour and an additional degree after 2 hours in cooling function.

5.12 Operation at maximum ventilation speed

key	Operation	Display
	Keep the Max operation key pressed. Activation of the function is indicated by the relative symbol appearing on the display.	

With this mode of operation, the maximum distributable power is immediately obtained both in heating as well as cooling.
Once the desired environment temperature is reached, it is advised to select one of the other 3 operation modes to obtain the best thermal and acoustic comfort.

5.13 Key lock

key	Operation	Display
	By pressing ON standby and Temp simultaneously for 1 second, the local block of all keys is activated, confirmed by the display of Loc. All adjustments are prevented to the user, and Loc. appears when pressing any key. To unlock the keys, repeat the sequence.	LOC

5.14 Deactivation

key	Operation	Display
	Keep the ON standby key pressed for about 2 seconds. The lack of any light indicators from the display indicates "standby" status (no function).	Off

The command guarantees anti-freeze safety even when in standby.

5.15 Switch off for long periods

In case of seasonal switch-offs or for holidays, proceed as follows:

- Deactivate the device.
- Switch Off the main switch.

⚠ The anti-freeze function is not active.

5.16 Error indications

Error	Display
Environment temperature probe fault (AIR).	
Fault in the water temperature detection probe, in the 2 pipe (H2) versions, positioned in the main battery.	
Fault of the cold water temperature detection probe on the 4 pipe (H4) versions.	
Problem with the fan motor (for example, jamming due to extraneous bodies, fault in the rotation sensor, activation of the protective micro switch due to filter cleaning operation).	
If, after 10 minutes of operation, the water temperature has not reached a suitable value for the requested operation, the solenoid valve and chiller or boiler consent contacts are deactivated (Example 1: in heating, with environment temperature 20°C and water temperature less than 15°C. Example 2: in cooling, with environment temperature 20°C and water temperature above 25°C). Unlocking occurs automatically after 45 minutes, or manually by pressing one of the 8 keys.	

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